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EXAMINER	
LERNER, MARTIN	

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/057,523	WHITE ET AL.	
	Examiner	Art Unit	
	MARTIN LERNER	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *59, 61 to 66, 68 to 73, 75 to 81, and 83* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *59, 61 to 66, 68 to 73, 75 to 81, and 83* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 80 is objected to because of the following informalities:

Claim 80 is directed to uploading the additional control signal, which comprises replacing, supplementing, or updating an existing control signal, where "the additional control signal" lacks express antecedent basis from independent claim 59, upon which claim 80 depends. Moreover, Applicants have cancelled all of the corresponding claims directed to replacing, supplementing, or updating an existing control signal, so that it is questioned whether the failure to cancel claim 80 was an oversight on the part of Applicants.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 59, 62 to 64, 66, 69 to 71, 73, 76 to 78, 81, and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Basore et al.* in view of *Besling et al.*

Concerning independent claims 59, 81, and 83, *Basore et al.* discloses a voice activated device and method for providing access to remotely retrieved data, comprising:

“a transceiver configured to receive input from the device via a communications network” – a digital signal in the form of a digital transmission from handset 110 (“the device”) is received by voice activated device 120 (column 2, lines 49 to 50: Figure 1); a response text is sent from text-to-speech unit 129 of voice activated device 120 and is communicated to a user of handset 110 (column 5, lines 16 to 20: Figure 2: Step 250); thus, the voice activated device 120 includes "a transceiver" to receive input from a user of handset 110, and to send a response to a user of handset 110; broadly, a digital transmission sent wirelessly from a cordless handset 110 to voice activated device 120 is an element of "a communications network";

“a memory configured to store an acoustic model of the input” – microprocessor 124 of voice activated device 120 has an associated memory unit 125; memory unit 125 comprises a phonetic acoustic models database 126; the phonetic acoustic models database stores a plurality of models of how phonemes are spoken (column 2, lines 60 to 65: Figure 1); the acoustic models are designed to recognize the input spoken by a user at handset 110 ("of the input");

“a processing module coupled to the transceiver and configured to perform speech recognition on the received input based on a previously stored acoustic model in order to recognize a command” – voice activated device 120 includes a speech recognition unit 128; speech recognition unit 128 is connected to microprocessor 124,

or may be a software program suitably running on microprocessor 124 (column 3, lines 10 to 17: Figure 1); a handset 110 issues a user's voice commands, and the voice commands are recognized by speech recognition unit 128 from phonetic acoustic models stored ("a previously stored acoustic model") in acoustic models database 126 of voice activated device 120 (column 4, lines 49 to column 5, line 3: Figure 2);

"wherein the transceiver is further configured to transmit data to the device responsive to the command, to enable the device to provide the data in an output response" – once a command spoken or issued by the user is recognized, microprocessor retrieves an appropriate response from application data stored in memory unit 125; the response is communicated to the user; in a preferred embodiment, the response text is sent to text-to-speech unit 129 and transformed into an acoustic response (column 5, lines 8 to 22: Figure 2: Step 250); alternatively, response text may be communicated to a user by a printer 170 or display screen 180 (column 5, lines 40 to 49: Figure 1).

Concerning independent claims 59, 81, and 83, the only significant element not expressly disclosed by *Basore et al.* is "wherein the acoustic model of the input and the previously stored acoustic model are associated with the device to address the specific characteristics of additional input received from the device." Arguably, too, *Basore et al.* omits "a communication network" between handset 110 and voice activated device 120 because any information is only communicated wirelessly to a cordless handset. *Basore et al.* discloses that the phonetic acoustic models are designed for a specific microphone so as to increase the speech recognition accuracy in voice activated device

120. (Column 2, Lines 38 to 43) Moreover, *Basore et al.* is designed to receive additional application data and acoustic spellings from remote central office, which are stored in dictionary 127. (Column 3, Line 66 to Column 4, Line 36: Figure 2: Steps 200, 210, and 220) Arguably, then, *Basore et al.* discloses that an acoustic model will "address specific characteristics of additional input" because an acoustic model stored in memory unit 125 is designed for a specific microphone. Thus, any previously stored acoustic model is “associated with the device” because it addresses issues of the input being affected by a particular microphone that is being used by handset 110.

Concerning independent claims 59, 81, and 83, however, even if *Basore et al.* does not squarely disclose an “acoustic model of the input” and “the previously stored acoustic model” for “additional input”, it is known in the prior art of speech recognition to train and store acoustic models for any new users. Specifically, *Besling et al*. teaches user model-improvement-data-driven selection and update of a user-oriented recognition model for speech recognition. Based on acoustic training data, a suitable acoustic model is selected or a basic acoustic model is adapted using a suitable adaptation profile. Each of the models is, preferably, targeted towards a specific type of speech, such as male/female speech, slow speech/fast speech, or speech with different accents. An acoustic model that gives the best results is then selected. (Column 5, Lines 3 to 14) Model improvement data comprises acoustic training data. A default acoustic model is initially selected, and then an acoustic model suitable for a user is selected from a plurality of different acoustic models. User station 350 may also extract certain acoustic characteristics, and select a best matching model based on the

characteristics. (Column 7, line 66 to Column 8, Line 45) Furthermore, *Besling et al*. teaches that at least one user station 350, 360, 370 is connected via communication means 312, 352 to a server station 310 by network 330, which may be any suitable network, such as a local area network, wide area network, or the Internet. (Column 5, Line 63 to Column 4, Line 19: Figure 3) An objective is to enable speech recognition in a client-server configuration, without undue training burden on a user, where a server is capable of simultaneously supporting recognition for many clients. (Column 4, Lines 14 to 22) It would have been obvious to one having ordinary skill in the art to include an acoustic model of input from a user and previously stored acoustic models to address specific characteristics of additional input received as taught by *Besling et al*. in a voice activated device of *Basore et al.* for a purpose of supporting recognition for many clients in a client-server speech recognition configuration.

Concerning independent claims 66 and 73, *Basore et al.* discloses a voice activated device and method for providing access to remotely retrieved data, comprising:

"receiving an audio input from a device over a network, the audio input based on speech input" – a digital signal in the form of a digital transmission from handset 110 ("the device") is received by voice activated device 120 (column 2, lines 49 to 50: Figure 1); a digital signal corresponds to a user's analog voice signal from microphone 112 that is converted by A/D converter 114 (column 2, lines 36 to 48: Figure 1); broadly, a digital

transmission sent wirelessly from a cordless handset 110 to voice activated device 120 is an element of "a network";

“storing an acoustic model of the audio input” – memory unit 125 comprises a phonetic acoustic models database 126; the phonetic acoustic models database stores a plurality of models of how phonemes are spoken (column 2, lines 60 to 65: Figure 1); implicitly, the acoustic models are designed to recognize the input spoken by a user at handset 110 ("of the audio input");

“performing speech recognition on the received audio input based on a previously stored acoustic model in order to recognize a command” – voice activated device 120 includes a speech recognition unit 128; speech recognition unit 128 is connected to microprocessor 124, or may be a software program suitably running on microprocessor 124 (column 3, lines 10 to 17: Figure 1); a handset 110 issues a user’s voice commands, and the voice commands are recognized by speech recognition unit 128 from phonetic acoustic models stored (“based on a previously stored acoustic model") in acoustic models database 126 of voice activated device 120 (column 4, lines 49 to column 5, line 3: Figure 2);

“transmitting data to the device over the network, responsive to the command, to enable the device to provide the data in an output response” – once a command spoken or issued by the user is recognized, microprocessor retrieves an appropriate response from application data stored in memory unit 125; the response is communicated to the user via handset 110; in a preferred embodiment, the response text is sent to text-to-speech unit 129 and transformed into an acoustic response (column 5, lines 8 to 22:

Figure 2: Step 250); alternatively, response text may be communicated to a user by a printer 170 or display screen 180 (column 5, lines 40 to 49: Figure 1).

Concerning independent claims 66 and 73, the only significant element not expressly disclosed by *Basore et al.* is "wherein the acoustic model of the input and the previously stored acoustic model are associated with the device to address the specific characteristics of additional input received from the device." Arguably, too, *Basore et al.* omits "a communication network" between handset 110 and voice activated device 120 because any information is only communicated wirelessly to a cordless handset. *Basore et al.* discloses that the phonetic acoustic models are designed for a specific microphone so as to increase the speech recognition accuracy in voice activated device 120. (Column 2, Lines 38 to 43) Moreover, *Basore et al.* is designed to receive additional application data and acoustic spellings from remote central office, which are stored in dictionary 127. (Column 3, Line 66 to Column 4, Line 36: Figure 2: Steps 200, 210, and 220) Arguably, then, *Basore et al.* discloses that an acoustic model will "address specific characteristics of additional input" because an acoustic model stored in memory unit 125 is designed for a specific microphone. Thus, any previously stored acoustic model is "associated with the device" because it addresses issues of the input being affected by a particular microphone that is being used by handset 110.

Concerning independent claims 66 and 73, however, even if *Basore et al.* does not squarely disclose an "acoustic model of the input" and "the previously stored acoustic model" for "additional input", it is known in the prior art of speech recognition to train and store acoustic models for any new users. Specifically, *Besling et al*. teaches

user model-improvement-data-driven selection and update of a user-oriented recognition model for speech recognition. Based on acoustic training data, a suitable acoustic model is selected or a basic acoustic model is adapted using a suitable adaptation profile. Each of the models is, preferably, targeted towards a specific type of speech, such as male/female speech, slow speech/fast speech, or speech with different accents. An acoustic model that gives the best results is then selected. (Column 5, Lines 3 to 14) Model improvement data comprises acoustic training data. A default acoustic model is initially selected, and then an acoustic model suitable for a user is selected from a plurality of different acoustic models. User station 350 may also extract certain acoustic characteristics, and select a best matching model based on the characteristics. (Column 7, line 66 to Column 8, Line 45) Furthermore, *Besling et al*. teaches that at least one user station 350, 360, 370 is connected via communication means 312, 352 to a server station 310 by network 330, which may be any suitable network, such as a local area network, wide area network, or the Internet. (Column 5, Line 63 to Column 4, Line 19: Figure 3) An objective is to enable speech recognition in a client-server configuration, without undue training burden on a user, where a server is capable of simultaneously supporting recognition for many clients. (Column 4, Lines 14 to 22) It would have been obvious to one having ordinary skill in the art to include an acoustic model of input from a user and previously stored acoustic models to address specific characteristics of additional input received as taught by *Besling et al*. in a voice activated device of *Basore et al.* for a purpose of supporting recognition for many clients in a client-server speech recognition configuration.

Concerning claims 62 to 63, 69 to 70, and 76 to 77, *Basore et al.* discloses that once a command spoken or issued by the user is recognized, microprocessor retrieves an appropriate response from application data stored in memory unit 125; the response is communicated to the user via handset 110; in a preferred embodiment, the response text is sent to text-to-speech unit 129 and transformed into an acoustic response (column 5, lines 8 to 22: Figure 2: Step 250); alternatively, response text may be communicated to a user by a printer 170 or display screen 180 (column 5, lines 40 to 49: Figure 1), thus, data sent by voice activated device 120 to handset 110 can include either "audio data" provided by text-to-speech unit or "a text message" for a display screen or printer.

Concerning claims 64, 71, and 78, *Basore et al.* discloses that handset 110 does not include a facility for speech recognition or retrieving a response; only voice activated device includes speech recognition unit 128 and text-to-speech unit 129, and only voice activated device can communicate a response to a user's command (column 3, lines 10 to 15: Figure 1; column 5, lines 8 to 22: Figure 2: Steps 240 and 250); thus, handset 110 ("the device") is not capable of processing the input voice command.

4. Claims 61, 65, 68, 72, 75, and 79 to 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Basore et al.* in view of *Besling et al*. as applied to claims 59, 66, and 73 above, and further in view of *Houser et al*.

Concerning claims 61, 68, and 75, *Basore et al.* discloses an application of voice commands for retrieving information about what programs are on television. (Column 5, Lines 8 to 40: Figure 3) However, *Basore et al.* does not provide video data as data that is a response to a user command, but only audio and text responses. However, it is known for speech commands to access information in a variety of forms. Specifically, *Houser et al*. teaches a speech interface for controlling a device such as a television and for controlling access to broadcast information such as video, audio, and/or text information in accordance with recognized utterances of a user. (Abstract) An objective is to afford ease of use as well as permitting the implementation of tasks which are not easily implemented using menu screens and key presses. (Column 2, Lines 23 to 29) It would have been obvious to one having ordinary skill in the art to provide video data to a user in response to a user's voice command as taught by *Houser et al.* from a voice activated device for requesting information about what's on television of *Basore et al.* for a purpose of permitting implementation of tasks which would be difficult to perform using menu screens and key presses.

Concerning claims 65, 72, and 79, *Houser et al*. discloses that information is retrieved from an information distribution center 12 in response to commands from terminal unit 16 for accessing information transmitted by information distribution center 12 (column 5, line 39 to column 6, line 14: Figure 1); additionally, electronic programming guide (EPG) data is accessed from an information provider 114-3, including television schedule information arranged by time and channel, and transmitted to subscriber units (column 22, line 19 to 51: Figure 2C). Similarly, *Basore et al.*

discloses that voice activated device 120 retrieves application data from central office 160 upon request or demand from a user. (Column 3, Lines 60 to 13: Figure 2: Steps 200, 210, and 220)

Concerning claim 80, *Houser et al*. discloses that second vocabulary data may be downloaded from head-end installation 125, where the second vocabulary data permits a user to use spoken controls to implement basic television control, as well as control of VCR 162-2 and access to EPG data; second vocabulary permits a user to use spoken controls to implement basic television control, EPG control, VCR control, and event programming (column 23, lines 38 to 50: Figure 2C); the second vocabulary includes the vocabulary of Table I above and additional vocabulary of Table II below (column 24, lines 1 to 34); thus, the second vocabulary provides controls for a VCR and an EPG that are at least "supplementing" to the first vocabulary of Table I.

Response to Arguments

5. Applicants' arguments filed 04 September 2009 have been considered but are moot in view of the new grounds of rejection, necessitated by amendment.

Applicants have presented substantially new subject matter in the amended claims, requiring further search and consideration. Thus, Applicants' arguments are moot. However, it is noted that Applicants have elected not to pursue the subject matter suggested in the telephone interview of 01 September 2009. During that interview, it was suggested that Applicants amend the claims to incorporate subject matter directed to the disclosure from ¶[0031] of United States Patent Publication 2002/0072918,

corresponding to the current application. Instead, Applicants have elected to amend the claims to incorporate subject matter directed to the disclosure from ¶[0088] of corresponding United States Patent Publication 2002/0072918. Of course, Applicants are free to pursue whatever subject matter they wish towards patentability. Still, it is maintained that the currently amended claims 59, 62 to 64, 66, 69 to 71, 73, 76 to 78, 81, and 83 are obvious under 35 U.S.C. §103(a) as being unpatentable over *Basore et al.* in view of *Besling et al.*, and claims 61, 65, 68, 72, 75, and 79 to 80 are obvious under 35 U.S.C. §103(a) as being unpatentable over *Basore et al.* in view of *Besling et al.*, and further in view of *Houser et al.*

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Lapere, Sherwood et al., Balakrishnan et al., Kahn et al., Wong, Kanevsky et al. ('700), and Scruggs et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Lerner/
Primary Examiner
Art Unit 2626
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